

Atty Dkt. No.: 10030836
USSN: 10/729,808

AMENDMENTS TO THE CLAIMS

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In the claims:

1. (Currently Amended) An **array** assay device comprising:
 - (a) a base;
 - (b) a cover; **and**
 - (c) a clamping member for holding said cover to said base; **and**
 - (d) a flexure or spring element that interacts with said clamping member such that when said clamping member is actuated a force is applied to the cover and base in a manner sufficient to produce a substantially uniform distance between an array assembly and backing element along the entire length of the cover and base when said array assembly and backing element are present in said device and configured for being operatively actuated in a manner sufficient to deflect an array assembly and a backing element in substantially the same curvature when said array assembly and backing element are present in said device.**
2. (Currently Amended) The **array** assay device of claim 1, wherein said array assay device is spring loaded.
3. (Currently Amended) The **array** assay device of claim 1, further comprising at least one spring element.
4. (Currently Amended) The **array** assay device of claim 3, wherein said at least one spring element is a separable component from said base and cover.
5. (Currently Amended) The **array** assay device of claim 4, wherein said at least one separable spring element is operatively positioned in at least one of: said cover and said base.
6. (Currently Amended) The **array** assay device of claim 3, wherein

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said at least one spring element is a disk spring or a coil spring.

7. **(Currently Amended)** The **array** assay device of claim 6, wherein said at least one spring element is a non-linear spring element.

8. **(Currently Amended)** The **array** assay of claim 3, where in said device comprises a screw and a screw stop for fixing the maximum number of turns of said screw.

9. **(Currently Amended)** The **array** assay device of claim 1, wherein said array assay device comprises at least one flexure.

10. **(Currently Amended)** The **array** assay device of claim 9, wherein said at least one flexure is a separate component from said base and said cover.

11. **(Currently Amended)** The **array** assay device of claim 10, wherein said at least one separate flexure is a clamping member flexure.

12. **(Currently Amended)** The **array** assay device of claim 10, wherein said cover is said at least one flexure.

13. **(Currently Amended)** The **array** assay device of claim 10, wherein said base is said at least one flexure.

14. **(Currently Amended)** The **array** assay device of claim 1, wherein said device is configured to limit the travel of at least one of said base and said cover when they are operatively held together with said clamping member.

15. **(Currently Amended)** The **array** assay device of claim 14, wherein said device further includes at least one of a spacer and a hardstop for limiting said travel.

16. **(Currently Amended)** The **array** assay device of claim 14, wherein

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said device is configured to provide a compression force along the entire length of said at least one of said spacer and said hardstop to provide a substantially uniform capillary gap between said array assembly and said backing element when said clamping member is operatively actuated.

17. **(Currently Amended)** A system for performing an array assay, said system comprising:

- (a) a base;
- (b) a cover;
- (c) an array assembly;**
- (d) a backing element; and**
- (~~[[e]]~~) e) a clamping member for holding said cover to said base; and**
- (f) a flexure or spring element that interacts with said clamping member such that when said clamping member is actuated a force is applied to the cover and base in a manner sufficient to produce a substantially uniform distance between an array assembly and backing element along the entire length of the cover and base when said array assembly and backing element are present in said device**
and configured for being operatively actuated in a manner sufficient to deflect an array assembly and a backing element in substantially the same curvature when said array assembly and backing element are present in said device.

18. **(Cancelled)**

19. **(Original)** The system of claim 17, further comprising at least one of a spacer and a hardstop.

20. **(Withdrawn)** A method of assaying a sample for the presence of at least one analyte, said method comprising: (a) contacting said sample with a first surface of a backing element to produce a backing element supported sample; (b) placing said backing element supported sample in contact with an array assembly to form a structure comprising said backing element and said array assembly; (c)

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holding said structure together using a device according to claim 1, wherein said array assembly and said backing element are deflected to the substantially the same curvature when said clamping member is operatively actuated; and (d) performing an array assay.

21. (Withdrawn) The method of claim 20, wherein said urging is accomplished by applying equal, opposing forces to said array assembly and said backing element.

22. (Withdrawn) The method of claim 20, wherein said device employed to hold said structure together comprises a flexure.

23. (Withdrawn) The method of claim 20, wherein said device employed to hold said structure together comprises at least one spring element.

24. (Withdrawn) The method of claim 20, wherein said method further comprising eliminating at least one unwanted bubbles from said structure.

25.-26. (Cancelled)

27. (Withdrawn) The method of claim 20, further comprising reading said at least one array to obtain a result.

28.-29. (Cancelled)

30. (Withdrawn) A method for performing an array assay, said method comprising: (a) receiving a pre-packaged array assembly in an array assay device according to claim 1, from a remote site, said pre-packaged array assembly spaced-apart from a backing element by a gasket; (b) performing an array assay using said received array assay device and said pre-packaged array assembly; (c) removing said pre-packaged array assembly from said array assay device; and (d) reading said at least one array to obtain a result.

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31. (Currently Amended) A kit for performing an assay, said kit comprising:

- (a) a base;
- (b) a cover; and
- (c) a clamping member for holding said cover to said base; and
- (d) a flexure or spring element that interacts with said clamping member such that when said clamping member is actuated a force is applied to the cover and base in a manner sufficient to produce a substantially uniform distance between an array assembly and backing element along the entire length of the cover and base when said array assembly and backing element are present in said device
~~and configured for being operatively actuated in a manner sufficient to deflect an array assembly and a backing element in substantially the same curvature when said array assembly and backing element are present in said device.~~

32. (Original) The kit of claim 31, further comprising an array assembly.

33. (Original) The kit of claim 31, further comprising a backing element.

New Claims:

34. (New) The array assay device of claim 1, wherein said clamping member comprises:

- (a) a bridge comprising at least two extending arm portions that terminate in feet portions and a bore; and
- (b) a rotatable screw disposed within said bridge.

35. (New) The array assay device of claim 34, wherein when said rotatable screw is actuated the screw contacts said cover.

36. (New) The array assay device of claim 34, wherein said arm portions comprise shoulders that allow flex upon actuation of said screw.

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37. (New) The array assay device of claim 34, wherein said feet portions of said bridge contact an underside of said base when said clamping member is operatively positioned about said cover and said base.